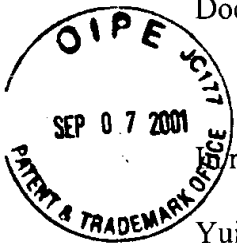


Docket No.: 50212-230

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



Re Application of

Yuichi WADA, et al.

Serial No.: 09/830,611

Group Art Unit: 1762

Filed: April 30, 2001

Examiner: not yet assigned

For: FILM DEPOSITION METHOD AND APPARATUS

RECEIVED  
SEP 10 2001  
TC 1700

SUBMISSION

Commissioner for Patents  
Washington, DC 20231

Sir:

Submitted herewith is a copy of the English Translation of the International Preliminary Examination Report in the Initial Application.

Respectfully submitted,

MCDERMOTT, WILL & EMERY

A handwritten signature in black ink, appearing to read "Arthur J. Steiner".

Registration No. 26,106

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**Date: September 7, 2001**  
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## PATENT COOPERATION TREATY

## PCT

NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT

(PCT Rule 72.2)

From the INTERNATIONAL BUREAU

To:

HASEGAWA, Yoshiki  
Soei Patent and Law Firm  
Okura-Honkan  
6-12, Ginza 2-chome  
Chuo-ku  
Tokyo 104-0061  
JAPON

Date of mailing (day/month/year) 01 June 2001 (01.06.01)	
Applicant's or agent's file reference TMW 99-18 PCT	IMPORTANT NOTIFICATION
International application No. PCT/JP99/06032	International filing date (day/month/year) 29 October 1999 (29.10.99)
Applicant WADA, Yuichi et al	

## 1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

## 2. Transmittal of the copy of the translation to the elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

US

The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

None

## 3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. (41-22) 740.14.35	Authorized officer Eliott Peretti Telephone No. (41-22) 338.83.38
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## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference TMW 99-18 PCT	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP99/06032	International filing date (day/month/year) 29 October 1999 (29.10.99)	Priority date (day/month/year) 29 October 1998 (29.10.98)
International Patent Classification (IPC) or national classification and IPC H01L 21/288, C23C 18/02		
Applicant WADA, Yuichi		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☒ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 24 March 2000 (24.03.00)	Date of completion of this report 31 January 2001 (31.01.2001)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP99/06032

## I. Basis of the report

## 1. With regard to the elements of the international application:\*

☐ the international application as originally filed☒ the description:pages 1-17, as originally filed

pages \_\_\_\_\_, filed with the demand

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

☒ the claims:pages 6, as originally filed

pages \_\_\_\_\_, as amended (together with any statement under Article 19

pages \_\_\_\_\_, filed with the demand

pages 1,7-8,10, filed with the letter of 04 September 2000 (04.09.2000)☒ the drawings:pages 1-13, as originally filed

pages \_\_\_\_\_, filed with the demand

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

☐ the sequence listing part of the description:

pages \_\_\_\_\_, as originally filed

pages \_\_\_\_\_, filed with the demand

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. ☒ The amendments have resulted in the cancellation of:☐ the description, pages \_\_\_\_\_☒ the claims, Nos. 2-5,9☐ the drawings, sheets/fig \_\_\_\_\_5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP99/06032

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1,6-8,10	YES
	Claims		NO
Inventive step (IS)	Claims	1,6-8,10	YES
	Claims		NO
Industrial applicability (IA)	Claims	1,6-8,10	YES
	Claims		NO

## 2. Citations and explanations

## (1) Documents

Documents 1-5 cited in the ISR are as follows:

Document 1: JP, 4-53132, A (Toshiba Corp.), 20 February, 1992 (20.02.92), the claims, Examples 1 and 6 (Family: none)

Document 2: JP, 9-45773, A (NEC Corp.), 14 February, 1997 (14.02.97), the claims, examples, page 4, paragraph 0034 (Family: none)

Document 3: JP, 9-302471, A (Anelva Corp.), 25 November, 1997 (25.11.97), column 2, lines 20-27 (Family: none)

Document 4: JP, 62-120475, A (Nichiden Anelva K.K.), 1 June, 1987 (01.06.87), the claims, drawings (Family: none)

Document 5: JP, 7-267621, A (Showa Denko K.K.), 17 October, 1995 (17.10.95), the claims, drawings (Family: none)

Document 1 describes a method of forming copper by coating with an organic metal containing copper, and heating.

Document 2 describes a method of forming, for example, aluminum and copper by coating with an organic metal containing, for example, aluminum and copper, and heating.

Document 3 describes Cu (hfac) (tmvs) as a liquid organic metal containing copper.

Documents 4 and 5 describe an apparatus having a film forming means and a heating means, in which both the means are connected through a carrying means.

## (2) Explanation

Documents 1-5 disclose means of coating with an organic metal-containing liquid containing copper and thermally decomposing to form a film. However, the present application has a constituent feature that an organic metal-containing liquid mainly composed of (hfac) Cu<sup>+1</sup> (tmvs) and (hfac) Cu<sup>+1</sup> (teovs) is thermally decomposed to form a film at a predetermined pressure higher than the atmospheric pressure to inhibit the natural evaporation of the organic metal-containing liquid. This constituent feature is neither disclosed in any of documents 1-5, nor obvious to a person skilled in the art.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP99/06032

## VI. Certain documents cited

## 1. Certain published documents (Rule 70.10)

<u>Application No. Patent No.</u>	<u>Publication date (day/month/year)</u>	<u>Filing date (day/month/year)</u>	<u>Priority date (valid claim) (day/month/year)</u>
JP,11-1778,A  (K.K. Tori Chemical Kenkyusho)  PY	06 January 1999 (06.01.1999)	04 December 1997 (04.12.1997)	04 August 1997 (04.08.1997)

## 2. Non-written disclosures (Rule 70.9)

<u>Kind of non-written disclosure</u>	<u>Date of non-written disclosure (day/month/year)</u>	<u>Date of written disclosure referring to non-written disclosure (day/month/year)</u>